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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/607,274	06/27/2003	Satoshi Seo	60188-566	4710

7590 09/02/2005

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EXAMINER

NGUYEN, KHIEM D.

ART UNIT	PAPER NUMBER
2823	

DATE MAILED: 09/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/607,274

Applicant(s)

SEO ET AL.

Examiner

Khiem D. Nguyen

Art Unit

2823

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 July 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7, 13 and 14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 6, 7 and 14 is/are allowed.
- 6) ☒ Claim(s) 1-5 and 13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 June 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 08/04/05.
- 4) ☒ Interview Summary (PTO-413)
Paper No(s)/Mail Date. 082605.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

The non-final rejection as set forth in paper No. (041405) mailed on April 19th, 2005 is withdrawn in response to applicants' amendments. A new rejection is made as set forth in this Office Action. Claims (1-7 and 13-14) are pending in the application.

Drawings

The drawings were received on August 04th, 2004. These drawings had been approved.

Claim Rejections - 35 USC § 112

Claim 1 recites the limitation "scribe line regions" in line 11. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

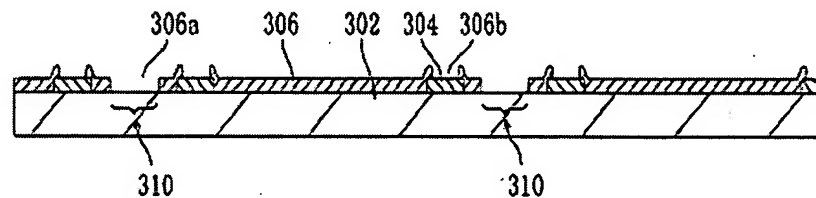
(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-5 and 13 are rejected under 35 U.S.C. 102(e) as being anticipated by the applicant's admitted prior art (AAPA) of this application.

In re claim 1, AAPA discloses a method for fabricating a semiconductor device, the method comprising the steps of (Background of the invention, pages 1-2 and FIGS. 20A-22):

(a) forming bonding pads **304** above a wafer **302** on which semiconductor elements (not shown) and an interconnect layer (not shown) are formed (Background of the Invention, page 1, lines 10-16 and FIG. 20A);

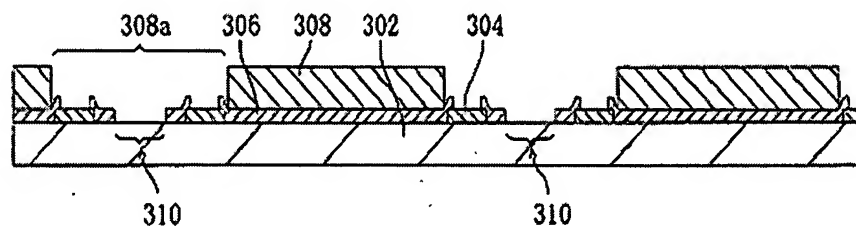
FIG. 20A
PRIOR ART



(b) forming a passivation film **306** having apertures **306a** and **306b** including regions of the passivation film **306** located above parts of the bonding pads **304** after the step (a) (Background of the Invention, page 1, lines 16-21 and FIG. 20A);

(c) forming a buffer coat film **308** for covering part of the passivation film **306** after the step (b) (FIG. 20B);

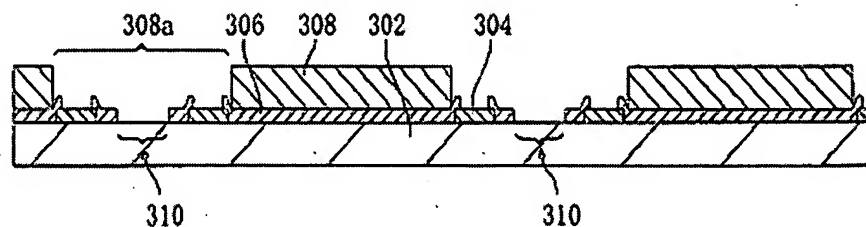
FIG. 20B
PRIOR ART



(d) forming, in the buffer coat film **308**, apertures **308a** including regions of the buffer coat film extending from an edge of the wafer and located on the whole periphery region having a certain distance from the peripheral of the wafer **302**, above scribe line

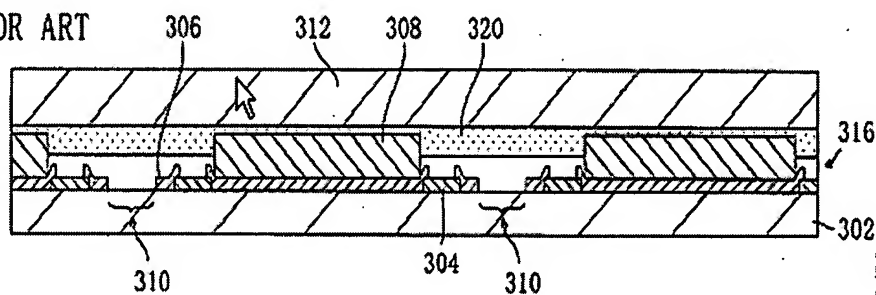
regions **310** and above the parts of the bonding pads **304**, respectively (Background of the Invention, page 1, line 22 to page 2, line 5 and FIG. 20B);

FIG. 20B
PRIOR ART



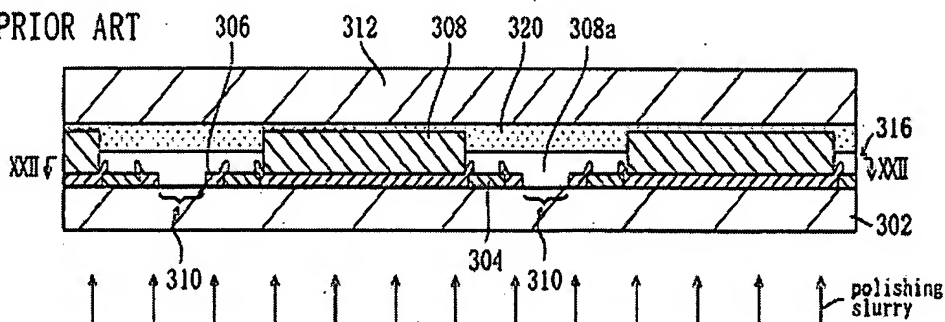
(e) bonding a surface protection tape **312** to the wafer using an adhesive material **320** after the step (d) (Background of the Invention, page 2, lines 2-5 and FIG. 21A); and

FIG. 21A
PRIOR ART



(f) polishing the rear surface of the wafer **302** after the step (e) (polishing slurry) (Background of the Invention, page 2, lines 6-14 and FIG. 21B).

FIG. 21B
PRIOR ART



In re claim 2, AAPA discloses that in the step (c), the buffer coat film 308 is formed using a positive-type photosensitive material, and the step (d) includes a process for exposing part of the buffer coat film 308 located on the periphery region of the wafer 302 (Background of the Invention, page 1, lines 22-26 and FIGS. 20A-21B).

In re claim 3, AAPA discloses that in the step (c), the buffer coat film 308 is formed using a positive-type photosensitive material, and the step (d) includes a process for exposing part of the buffer coat film 308 located on the wholes of chip regions (not shown) at least partly overlapped with the periphery region of the wafer 302 (Background of the Invention, page 1, lines 22-26 and FIGS. 20A-21B).

In re claim 4, AAPA discloses that in the step (c), the buffer coat film 308 is formed using an organic resin, and the step (d) includes a process for selectively removing part of the buffer coat film 308 located on the periphery region of the wafer 302 by a solvent (AAPA, page 1, lines 22-26).

In re claim 5, AAPA discloses that in the step (c), the buffer coat film 308 is formed using an organic resin, and the step (d) includes a process for blowing gas on part of the buffer coat film 308 located on the periphery region of the wafer 302 before the curing of the buffer coat film (AAPA, page 1, lines 22-24 and FIGS. 21A-B).

In re claim 13, AAPA discloses that in the step (d), the whole peripheral region refers to circular regions in the periphery of the wafer 302 (FIGS. 20A-21B and related text).

Allowable Subject Matter

Claims 6-7 and 14 are allowed.

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Reasons For Allowance

The following is a statement of reasons for the indication of allowable subject matter: (see Applicants' argument in the Amendment submitted on July 19th, 2005 on page 6, lines 15-19, i.e., claim 6, has been amended to recite in pertinent part, "reducing the thickness of an outermost peripheral part of the buffer coat film").


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Khiem D. Nguyen whose telephone number is (571) 272-1865. The examiner can normally be reached on Monday-Friday (8:30 AM - 5:30 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew S. Smith can be reached on (571) 272-1907. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

K.N.
August 27th, 2005



W. DAVID COLEMAN
PRIMARY EXAMINER